

## **REMARKS**

Claims 1-20 are rejected. By present amendments, claims 1, 3, 8 and 14 are amended to better convey the intent of the invention. No claims have been added or canceled. In light of the amendments and remarks below, reconsideration and allowance of all the claims are respectfully requested.

### **Rejection under 35 U.S.C. § 103**

Claims 1-8 & 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bernacchi (4,744,994) in view of Rispoli (4,260,637).

With respect to claims 1-8 & 13, the Office Action states:

Bernacchi discloses a twice-fried food that is frozen for reconstitution in the microwave. After the food is coated and fried once, the process corresponds to the cooked food substrate of step b. The second coating in Bernacchi is a combination of a batter and supplemental breading. The coated fried food is then fried again at 183-200C (see example 1) and then cooled. Although the glass transition temperature is not mentioned in Bernacchi, the frying temperatures are the same as that suggested in the specification at page 10, line 20. Thus one of ordinary skill in the art would have expected that the heating conditions of step d in claim 1 would have fallen within the range that is set forth in the claims. Claim 1 appears to differ from Bernacchi in the use of a particulate coating containing an adhesive. Rispoli teaches a self-sticking breadcrumb composition. The breadcrumbs are a particular mesh size and are coated with 1-35% of an adhesive (column 2, line 65). The adhesive contains 1% protein and can contain gum and/or starch. The protein may be whey protein, milk protein, soy isolate, gelatin, egg albumin or wheat gluten. At column 4, lines 41-45 the use of the coating on foods for frying or baking is disclosed. At column 4, lines 5-40, the concept of including a liquid adhesive is disclosed to include oil or water. It would have been obvious to one of ordinary skill in the art to utilize the breadcrumbs of Rispoli in frying process of Bernacchi to provide a fried chicken product having optimum selected flavor choices. It is appreciated that the mixing devices of claim 4 are not recited but no unobvious or unexpected results are seen from the use of a mixer to mix the coating material and in the use of the paper bag taught in Rispoli. The difference between the mixers is seen to be dependent upon the amount of materials that need to be mixed. No unobvious or unexpected result is seen from the baking step in claim 7 because Rispoli teaches that both are known for use in coating food items. To bake Bernacchi instead of fry it would have been an obvious way to low the calories in the product.

Claim 1 has been amended to better reflect the intent of the claimed invention. The claimed invention is directed towards use of a non-water-based, heat-activated adhesive. While the adhesive and bits of the present invention have a moisture content, they are applied in a dry

state. *Rispoli*, rather than teaching the claimed invention actually teaches away from the claimed invention. For example, rather than using heat to activate the dry adhesive as is done in the claimed invention, *Rispoli* teaches that “[w]hen the dry bread crumb composition comes into contact with the moistened surface of the comestible, the cohesive properties of the adhesive are activated enabling the bread crumb composition to adhere the comestible surface.” Amended claim 1 requires that the food substrate have no added water. Applicants respectfully request Examiner withdraw the rejection to claims 1-8 and 13.

Further, the omission of an element and retention of its function is an indicia of unobviousness. *In Re Edge*, 359 F.2d 896, 149 USPQ 556 (CCPA 1966). Where the present invention is directed towards a dry adhesive applied to food substrate having no added water, *Rispoli* requires a moistening step. *Rispoli* teaches that “the surface of the comestible must be moist, damp, or slightly wet. This can be commonly carried out by spraying the comestible with water or dipping the comestible in water.” (Col. 4, lns. 25-29). *Rispoli*, therefore requires an additional step, namely a moistening step, than the present invention requires in claims 1-8 and 13. Applicants respectfully request the Examiner to withdraw the rejection as to claims 1-8 and 13.

In addition, none of the prior art cited teaches or suggests the claimed step of “heating said adhesive-bit mix to a temperature above a glass transition temperature of said dry adhesive wherein said glass transition temperature is between about 40°C to 60°C and further wherein said dry adhesive comprises a moisture content of about 4 to 8%” as required by claims 1-8 and 13. One advantage of the heat-activated dry adhesive of the claimed invention is that the glass transition temperatures require less total heat input than the water-based system disclosed by *Rispoli*. Because the *Rispoli* adhesive uses water, long cooking times are required. For example, the cooking time in Example I of *Rispoli* after addition of the topping totals 50 minutes (col. 5 lns. 58-60), Example II of *Rispoli* totals 50 minutes (Col. 6, lns. 30-31), and Example III of *Rispoli* totals 40 minutes. Examiner argues this is inapposite because “[a]lthough the glass transition temperature is not mentioned in *Bernacchi*, the frying temperatures are the same as that suggested in the specification at page 10, line 20.” (Office Action dated May 3, 2005, p. 2). However, subjecting a food substrate to an unnecessarily high heat load after the substrate has been already cooked can have negative impacts on flavor and texture. In addition, it is more economical to use a lower heat load. Applicants respectfully request the Examiner to withdraw the rejection as to claims 1-8 and 13.

Further, the claimed limitation of “an adhesive-bit mix wherein said bits are substantially between 1.7 to 17 mm in diameter” is not taught or suggested in *Rispoli*. Rather, *Rispoli* is directed towards bread crumbs “wherein not more than 10% of the crumbs are retained on a 5 mesh U.S. Standard Screen.” (Col. 2, ln. 11). In other words, *Rispoli* teaches that at least 90% of its bread crumbs should pass through a 5 mesh screen. A 5 mesh screen has a nominal wire diameter of 1.37 mm. *Rispoli* therefore teaches adhering 90% of crumbs less than 1.37 mm to a moistened food product. *Rispoli* fails to teach or suggest bits in the claimed range. Applicants respectfully request the Examiner to withdraw the rejection as to claims 1-8 and 13.

Claims 1-3 & 6-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Budd (4,910,031).

Regarding claims 1-3 & 6-20, the Office Action states:

Budd discloses topped savory snack foods. At example III potato chips are coated with a binder used as an adhesive made of a liquid component and a dry component. The liquid component is sucrose, water, polysorbate and lactisole. The dry component is maltodextrin. Then the chips are topped with cheese, bacon and onion flakes and heat treated in an oven at 105C for 2 minutes. After cooling the product is vacuum treated to provide a snack food with a coating. Claim 1 appears to differ from Budd in the recitation of coating the seasoning bits with an adhesive and in the recitation of the particular extent of toppings used on the chip. It would have been obvious to one having ordinary skill in the art to coat the toppings of Budd with an adhesive in order to further increase the adhesion of the coatings to the potato chips. It is appreciated that the particular amount of coatings used on the chip is not disclosed in the reference but no unobvious or unexpected result is seen from the inclusion of more toppings on the chip of Budd to improve the nutritional value and overall flavor impact of the product.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art further shows the state of the art relating to snack foods.

A prima facie case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). While the adhesive and bits of the present invention have a moisture content, the adhesive and bits are applied in a dry state. The

presently claimed invention in claims 1 and 14 is directed towards using a dry adhesive to adhere large particulate bits to a food substrate. The *Budd* reference, on the other hand, is directed towards an aqueous binder solution having sugar and sweetness inhibitors to better adhere powdery toppings and reduce the rub-off of powdering toppings to a consumer's hand. Unlike the presently claimed invention, the *Budd* reference requires a binder solution having "about 20% to 80% water." (Col. 3, ln. 11). One drawback to using a water-based binder is the amount of heat required to dry the water-based binder composition. For example, *Budd* teaches that the "coated snack food item is dried following application of the aqueous binder composition to remove excess moisture which could otherwise adversely affect the texture, appearance, and/or shelf life of the product." (Col. 5, ln. 25-28). *Budd* therefore requires a drying step in a vacuum or forced air oven. In each of the five examples given in the *Budd* reference, the drying time was 1 to 1 ½ hours. In comparison, the instant patent application describes a dwell time of 34 seconds. While the instant application is by no means limited to such a narrow dwell time, the dwell time comparison between the cited reference and the instant application does provide an example of the relatively reduced heat load of the present invention as compared to the heat load required by *Budd*. As a further illustration, it takes roughly 970 BTUs to convert one pound of water to steam (latent heat) to dry the binder of *Budd* for every 1 BTU it takes to raise one pound of the dry adhesive 1°F to trigger the glass transition state. A transition through the glass transition state requires no latent heat. Thus, the binder of one pound of *Budd* requires roughly 400 to 700 BTUs (assuming a 25% to 50% water solution) as compared to 20 to 45 BTUs of energy required by the same amount of adhesive of the present invention. Applicants respectfully request that the Examiner withdraw the rejection to claims 1-3 and 6-20.

Examiner additionally admits that the "particular amount of coatings used on the chip is not disclosed in the reference but not unobvious or unexpected result is seen from the inclusion of more toppings on the chip of *Budd* to improve the nutritional value and overall flavor impact of the product." It is not necessarily the amount of toppings, but the size of the toppings that the applicants assert is not suggested by *Budd*. In the last paragraph of page 4 of the patent application, the applicants discuss, among other things, the desire for a snack food to emulate a topped food product with large flavoring bits that is highly resistant to separation. Thus, although not explicitly disclosed by the patent application, one could reasonably infer a snack product that may emulate a tostada or a pizza. The *Budd* reference on the other hand is replete with references to powdery and particulate toppings. For example, *Budd* teaches,

“A mixture of particulate toppings (4 g dried green onion flakes), 7 g dried bacon bits and 1 g dried green onion flakes) was sprinkled onto the binder-treated chips. The chips were then placed in a forced air oven at 105 C. for 2 minutes to cause the Maltrin® to dissolve and to effect fusion of the binder with the particulates.

(Col. 3, lns. 46-48) (emphasis added).

It is clear that when the *Budd* reference is taken as a whole, that *Budd* does not teach or suggest the claimed limitation of “an adhesive-bit mix wherein said bits are substantially between 1.7 to 17 mm in diameter.” Applicants respectfully request that the Examiner withdraw the rejection to claims 1-3 and 6-20.

In addition, Examiner failed to provide any support for her rejection of claims 6, 8, 12, and 18-20. The MPEP instructs that “[i]t is important for an examiner to properly communicate the basis for rejection so that the issue can be identified early and the applicants can be given fair opportunity to reply.” MPEP § 706.02(j). Furthermore, the Examiner’s “findings should clearly articulate which portions of the reference support any rejection. ... Conclusory statements of similarity or motivation, without any articulated rationale or evidentiary support, do not constitute sufficient factual findings.” MPEP § 2144.08. As the Examiner failed to support his rejection of claims 6, 8, 12, and 18-20 with an explanation or specific citation to any reference, Examiner is respectfully invited to either withdraw the rejection of claims or provide a specific citation to a reference disclosing the claimed invention.

Thus, it is respectfully submitted that Examiner has not established a prima facie case of obviousness and the rejection of all claims should be withdrawn.

### **CONCLUSION**

In light of the amendments and the arguments made by Applicants above, Applicants submit that all existing claims are now in a condition for allowance. Applicants respectfully request that Examiner withdraw all restrictions and rejections with regard to the above-referenced claims in reliance on one or more of the grounds submitted by Applicants.

If there are any outstanding issues that the Examiner feels may be resolved by way of telephone conference, the Examiner is invited to call Colin Cahoon or Chad Walter at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

The Commissioner is hereby authorized to charge any payments that may be due or credit any overpayments to CARSTENS & CAHOON, L.L.P. Deposit Account 50-0392.

Respectfully submitted by:



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